

REMARKS

Claims 1-10 are all the claims pending in the application.

Reconsideration and review of the claims on the merits are respectfully requested.

Drawings

The proposed drawing correction filed on April 15, 2003 has been disapproved because the Examiner asserts that new matter is introduced into the drawings. The Examiner states that the original disclosure does not support the showing of "the optical element (3) on top of the optical element (4) as shown in Fig. 2". As can be seen in Fig. 1, these elements are reversed.

The drawings filed on January 16, 2001 and April 15, 2003 are also objected to by the Draftsperson for informalities as indicated in the "Notice of Draftsperson's Patent Drawing Review", PTO-948.

Applicants respond as follows.

Applicants note that the LCD in Fig. 2 is labeled as "3" which may be confusing to the Examiner who may be confusing the LCD (3) with one of the "optical parts 3, 4, and 5" in Fig. 1. Applicants amend Fig. 2 to label the LCD with new label "6" to clarify the drawing and to overcome the Examiner's objection. The LCD (6) of Fig. 2 is appropriately depicted on top of optical part (4). Support in the specification can be found, for example, at pages 26-27 describing that the organic EL device may contain one optical part or two or more optical parts where such optical part(s) may be disposed in one or more appropriate positions outside or

within the organic EL device. Furthermore, the specification supports a liquid-crystal cell of a liquid crystal display disposed on the light emission side of the light source.

Additionally, Applicants modify Fig. 2 to clarify that an optical part 3 may exist below the optical element 4.

Applicants also submit replacement sheets for Figs. 1 and 2 to overcome the Draftsperson's objections that the scale of the drawings is too crowded and that the numbers are not uniformly thick and well-defined. These replacement sheets for Figs. 1 and 2 substitute for the previously filed drawings.

Accordingly, Applicants respectfully request entry of the replacement sheets with the described changes along with reconsideration and withdrawal of the objection to the drawings.

Claim Rejections - 35 U.S.C. § 103

The Examiner maintains the original obviousness rejections as stated in the Office Action dated December 17, 2002.

Claims 1-2 and 6-10 are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Shirasaki et al (U.S. Patent No. 6,025,894) in view of Allen et al (U.S. Patent No. 6,111,696) for the reasons given in the Office Action.

Claims 3-5 are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Shirasaki and Allen as applied to claim 1 above, and further in view of Pokorny et al (U.S. Patent No. 6,461,775) for the reasons given in the Office Action.

Applicants respond as follows.

Applicants claim a combination of novel and unobvious elements. Applicants claim, inter alia, an organic electroluminescent device containing an organic electroluminescent element and a polarized-light scattering film which comprises a light-transmitting resin and dispersedly contained therein minute regions differing from the light-transmitting resin in birefringent characteristics and in which the difference in refractive index between the minute regions and the light-transmitting resin in the axis direction in which a linearly polarized light has a maximum transmittance, Δn^1 , is smaller than 0.03 and that in a direction perpendicular to the Δn^1 direction, Δn^2 , is from 0.03 to 0.5, the light produced by the organic electroluminescent element being emitted from the device through the polarized-light scattering film.

Applicants have traversed the rejection in detail in the Amendment under 37 C.F.R. § 1.111 filed on April 15, 2003. Applicants further clarify that in previous argument the phrase “due to reflection to visible direction” should be restated as “due to reflection *in the* visible direction” which should then be clearly understood by the Examiner.

The cited art does not teach or disclose to apply optical members relating to scattering, which are used in quite different purposes from organic EL devices, in different applications, and one skilled in the art would not be motivated to make such an application. In the event that the scatter control plate of Shirasaki is replaced with the combination as shown in Figs. 12a and 12b of Allen, vertically incident light reflects, and incident light toward an oblique direction curves its light path and permeates. One skilled in the art would expect this combination as establishing both transmission mode and reflection mode, but would expect that visibility markedly lowers at a reflection mode (due to reflection in the visible direction).

On the other hand, the concept of the present invention that light is emitted as a polarizing light while improving external emission efficiency of an organic EL by selective polarized light scattering of a polarized light scatter plate and confining the effect by total reflection differs from the concept of visibility improvement as disclosed in Shirasaki. Therefore, one skilled in the art would not have been motivated to combine Shirasaki and Allen to arrive at Applicants' claimed invention.

In addition, Applicants provide the following comments in traversal of the obviousness rejections. Visibility improvement in Shirasaki is due to optical properties of a scatter control member. Shirasaki's scatter control member scatters incident light from a back surface (where incident light within a predetermined angle range goes straight, whereas light outside the predetermined angle range reflects and scatters) and scatters incident light from a front surface (where incident light within a predetermined angle range goes straight without reflecting, whereas incident light outside the predetermined angle range reflects and scatters). Thus, Shirasaki does not utilize functions of a so-called scatter film expected from the general scattering characteristics of a member used in a liquid crystal display. This is understood from Fig. 31 of Shirasaki disclosing intensity in addition to brightness when a scatter film is applied in the device of the disclosed Examples, as the brightness is apparently low as compared with the case of EL element only.

Shirasaki is concerned with a scatter control member which passes incident light within a predetermined range without scattering and passes light outside the predetermined range with

scattering (See Shirasaki's Abstract). Light emitted through a member disclosed in Shirasaki is not polarized.

On the other hand, the polarized light guide plate of Allen does not have the function of passing incident light within a predetermined range without scattering and passing light outside the predetermined range with scattering. In fact, Allen is concerned with an optical film containing disperse phase particles. The size and shape of the disperse phase particles of Allen, the volume fraction of the disperse phase, the film thickness, and the amount of orientation are chosen to attain a degree of diffuse reflection and total transmission of electromagnetic radiation of a desired wavelength in the resulting film, and the light directing materials are chosen to control the direction of polarized light reflected from or transmitted by the optical film (See Allen's Abstract).

Thus, Applicants submit that one skilled in the art would not have been motivated to combine these references based on their teachings alone, and not based on Applicants' disclosure, nor would one skilled in the art know how to combine these references to achieve polarized light which may be obtained by not only controlling an angle, but also controlling a polarized state, as claimed in Applicants' independent Claim 1.

Claims 2-10 are dependent upon Applicants' Claim 1 and are novel and unobvious for at least the same reasons as given above for Claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a).

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/759,339

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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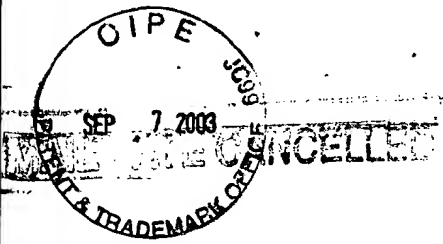
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FIG. 1

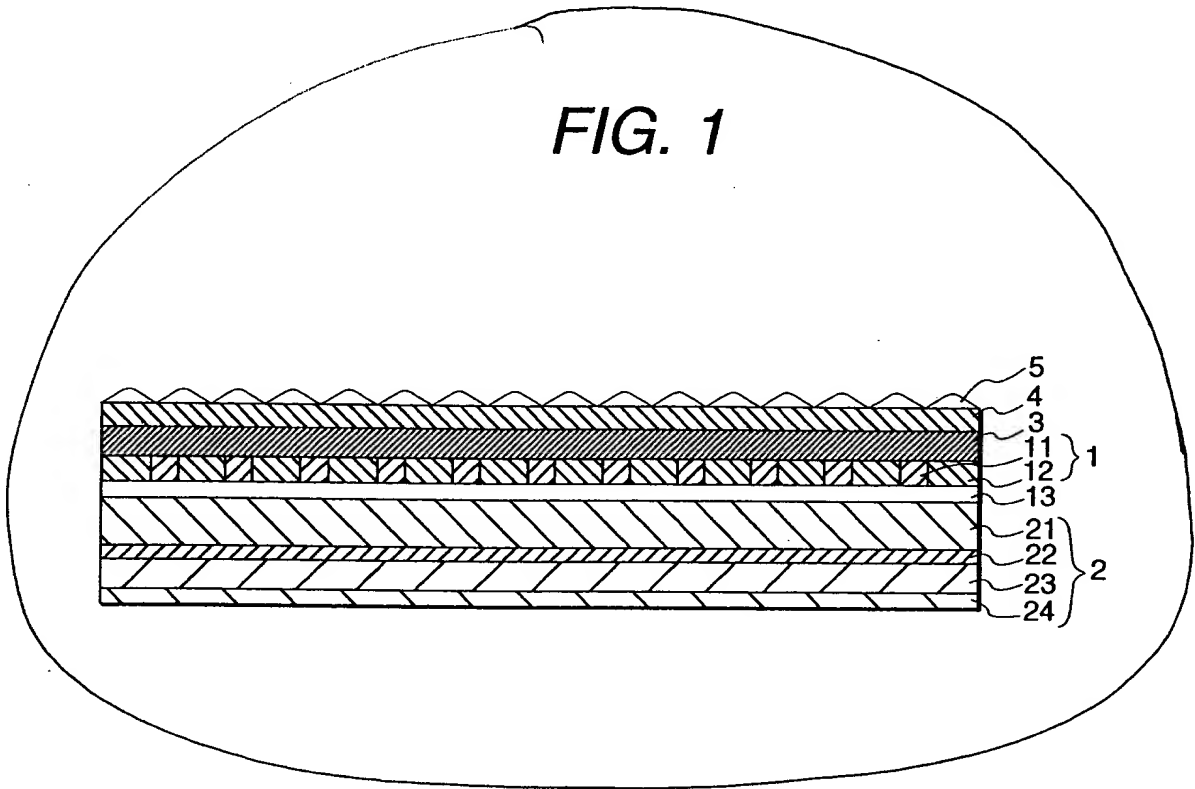


FIG. 2

